

**Title 33
ENVIRONMENTAL QUALITY**

Part I. Office of the Secretary

Subpart 1. Departmental Administrative Procedures

Chapter 7. Penalties

§705. Penalty Determination Methodology

A. – D. ...

E. The information obtained from the violation-specific and violator-specific factors can be entered into one of the following formulas to obtain a penalty amount (P_n) for each penalty event:

$$P_n = A_n + (B_n \times [C_n - A_n])$$

$$P_n = 2(A_n + [B_n \times (C_n - A_n)]) *$$

where:

P_n = penalty amount for a given penalty event.

A_n = the minimum value of the penalty range for the cell located on the penalty matrix for a given penalty event.

B_n = the sum of percentage adjustments calculated for a given penalty event, where 100 percent $\geq B \geq -100$ percent.

C_n = the maximum value of the penalty range for the cell located on the penalty matrix for a given penalty event.

* [NOTE: For violation of a previous enforcement action the penalty is multiplied by 2. The statutory maximum is \$50,000 in circumstances where the penalty event constitutes a violation of a previous enforcement action as stated in R.S. 30:2025(E)(2).]

F. – J. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2050.3.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, LR 25:658 (April 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 25:2400 (December 1999), LR 30:421 (March 2004), amended by the Office of Environmental Assessment, LR 30:2802 (December 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 32:**.

Chapter 9. Petition for Rulemaking

§909. Processing a Rulemaking Petition

A. ...

B. Within 90 days of receipt of the petition for rulemaking, the administrative authority shall deny the petition in writing, stating reasons for the denial, or shall initiate

rulemaking by providing the petitioner with ~~a—the necessary~~, completed ~~Regulatory Agenda~~ ~~E~~form as provided in the department's Policy Number 0003-88, "Rule Development Procedure."

1. – 2. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of the Secretary, LR 23:298 (March 1997), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2440 (November 2000), amended by the Office of the Secretary, Legal Affairs Division, LR 32:**.

Part III. Air

Chapter 5. Permit Procedures

§509. Prevention of Significant Deterioration

A. – A.4.e. ...

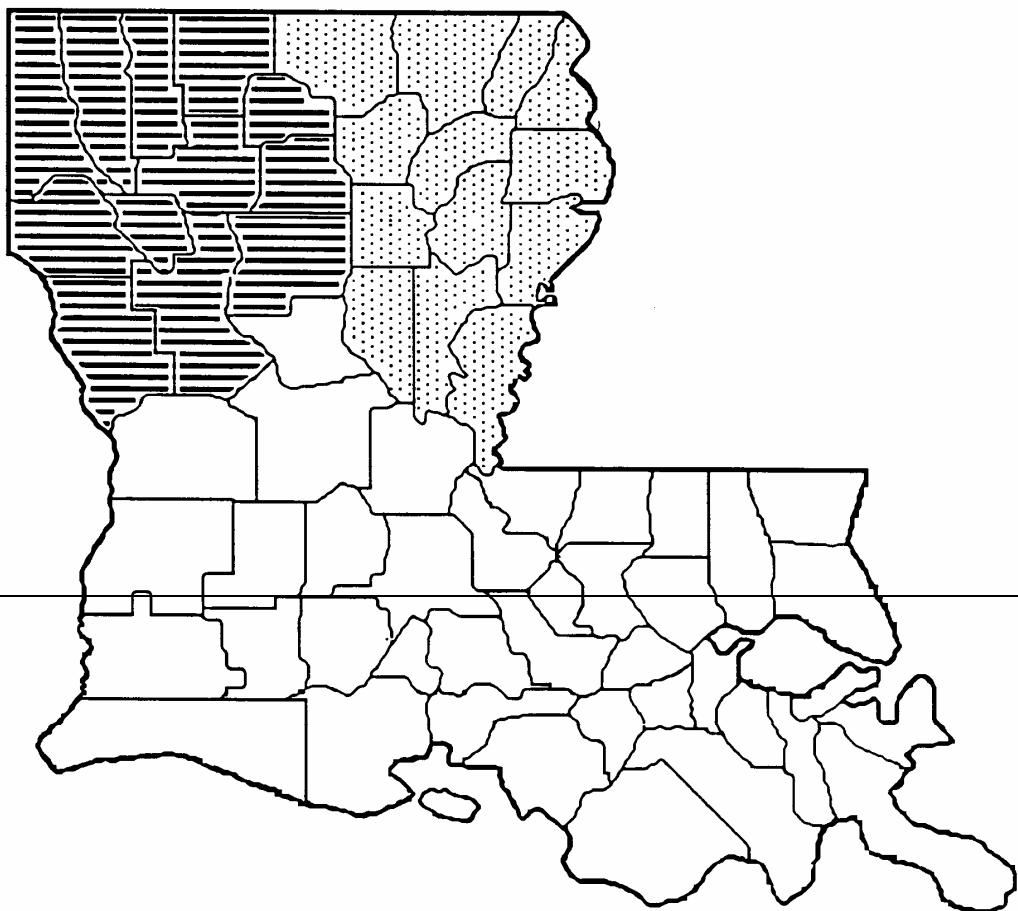
f. Hybrid Test for Projects That Involve Multiple Types of Emissions Units. A significant emissions increase of a regulated NSR pollutant is projected to occur if the sum of the emissions increases for each emissions unit, using the method specified in Subparagraphs A.4.c-~~d~~e of this Section as applicable with respect to each emissions unit, for each type of emissions unit equals or exceeds the significant amount for that pollutant, as defined in Subsection B of this Section.

A.5. – AA.15.b. ...

Figure 1, AQCR, Map of Louisiana. Repealed. [Editor's Note: Map is located after Section 509, Historical Note.]

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2054.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Air Quality and Nuclear Energy, Air Quality Division, LR 13:741 (December 1987), amended LR 14:348 (June 1988), LR 16:613 (July 1990), amended by the Office of Air Quality and Radiation Protection, Air Quality Division, LR 17:478 (May 1991), LR 21:170 (February 1995), LR 22:339 (May 1996), LR 23:1677 (December 1997), LR 24:654 (April 1998), LR 24:1284 (July 1998), repromulgated LR 25:259 (February 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2447 (November 2000), LR 27:2234 (December 2001), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2437 (October 2005), LR 31:3135, 3156 (December 2005), LR 32:**.



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Part V. Hazardous Waste and Hazardous Materials

Subpart 1. Department of Environmental Quality—Hazardous Waste

Chapter 22. Prohibitions on Land Disposal

Subchapter B. Hazardous Waste Injection Restrictions

§2299. Appendix—Tables 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12**Table 2. Treatment Standards for Hazardous Wastes**

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Non-Wastewaters	
		Common Name	CAS ² Number	Concentration in mg/L ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/L TCLP" or Technology Code ⁴	
* * *						
[See Prior Text in D001 ⁹ – F028]						
F032	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with LAC 33:V.4901.B.3 or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (i.e., F034 or F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	Acenaphthene	83-32-9	0.059	3.4	
		Anthracene	120-12-7	0.059	3.4	
		Benz(a)anthracene	56-55-3	0.059	3.4	
		Benzo(ba)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8	
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8	
		Benzo(a)pyrene	50-32-8	0.061	3.4	
		Chrysene	218-01-9	0.059	3.4	
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2	
		2-4 Dimethylphenol	105-67-9	0.036	14	
		Fluorene	86-73-7	0.059	3.4	
		Hexachlorodibenzo-p-dioxins	NA	0.000063, or CMBST ¹¹	0.001, or CMBST ¹¹	
		Hexachlorodibenzofurans	NA	0.000063, or CMBST ¹¹	0.001, or CMBST ¹¹	
		Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4	
		Naphthalene	91-20-3	0.059	5.6	
		Pentachlorodibenzo-p-dioxins	NA	0.000063, or CMBST ¹¹	0.001, or CMBST ¹¹	
		Pentachlorodibenzofurans	NA	0.000035, or CMBST ¹¹	0.001, or CMBST ¹¹	
		Pentachlorophenol	87-86-5	0.089	7.4	
		Phenanthrene	85-01-8	0.059	5.6	
		Phenol	1089-5-2 108-95-2	0.039	6.2	
		Pyrene	129-00-0	0.067	8.2	
		Tetrachlorodibenzo-p-dioxins	NA	0.000063, or CMBST ¹¹	0.001, or CMBST ¹¹	
		Tetrachlorodibenzofurans	NA	0.000063, or CMBST ¹¹	0.001, or CMBST ¹¹	
		2,3,4,6- Tetrachlorophenol	58-90-2	0.030	7.4	
		2,4,6- Trichlorophenol	88-06-2	0.035	7.4	
		Arsenic	7440-38-2	1.4	5.0 mg/L TCLP	

Table 2. Treatment Standards for Hazardous Wastes

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Non-Wastewaters
		Common Name	CAS ² Number	Concentration in mg/L ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/L TCLP" or Technology Code ⁴
	Chromium (Total)	7440-47-3	2.77	0.60\$6 mg/L TCLP	
F034	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	Acenaphthene	83-32-9	0.059	3.4
		Anthracene	120-12-7	0.059	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(ba)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	0.11	6.8
		Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	0.11	6.8
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Fluorene	86-73-7	0.059	3.4
		Indeno (1,2,3-c,d) pyrene	193-39-5	0.0055	3.4
		Naphthalene	91-20-3	0.059	5.6
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
		Chromium (Total)	7440-47-3	2.77	0.60\$6 mg/L TCLP
F035	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	Arsenic	7440-38-2	1.4	5.0 mg/L TCLP
	Chromium (Total)	7440-47-3	2.77	0.60\$6 mg/L TCLP	
F037	Petroleum refinery primary oil/water/solids separation sludge. Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludges include, but are not limited to, those generated in: oil/water/solids separators; tanks and impoundments;	Acenaphthene	83-32-9	0.059	NA
		Anthracene	120-12-7	0.059	3.4
		Benzene	71-43-2	0.14	10
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28
		Chrysene	218-01-9	0.059	3.4
		Di-n-butyl phthalate	84-74-2	0.057	28
		Ethylbenzene	100-41-4	0.057	10
		Fluorene	86-73-7	0.059	NA

Table 2. Treatment Standards for Hazardous Wastes

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Non-Wastewaters	
		Common Name	CAS ² Number	Concentration in mg/L ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/L TCLP" or Technology Code ⁴	
ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludges generated from noncontact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludges generated in aggressive biological treatment units as defined in LAC 33:V.4901.B.2.b. (including sludges generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing. <u>This listing does include residuals generated from processing or recycling oil-bearing hazardous secondary materials excluded under LAC 33:V.105.D.1.1, if those residuals are to be disposed.</u>	Naphthalene	91-20-3	0.059	5.6		
	Phenanthrene	85-01-8	0.059	5.6		
	Phenol	108-95-2	0.039	6.2		
	Pyrene	129-00-0	0.067	8.2		
	Toluene	108-88-3	0.080	10		
	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	-0.32	30		
	Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP		
	Cyanides (Total) ⁷	57-12-5	1.2	590		
	Lead	7439-92-1	0.69	NA		
	Nickel	7440-02-0	NA	11mg/L TCLP		
* * *						
[See Prior Text in F038]						
F039	Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under LAC 33:V.Subchapter A. (Leachate resulting from the disposal of one or more of the following EPA Hazardous Wastes and no other Hazardous Wastes retains its EPA Hazardous Waste Number(s): F020, F021, F022, F026, F027, and/or F028.)	* * *				
		[See Prior Text in Acenaphthylene – Endosulfan II]				
		Endosulfan sulfate	1031-07-8 + 031-07-8	0.029	0.13	
* * *						
[See Prior Text in Endrin – Vanadium]						
K001	Bottom sediment sludge from the <u>and/or</u> treatment of wastewaters from wood preserving processes that use creosote <u>and/or</u> pentachlorophenol.	Naphthalene	91-20-3	0.059	5.6	
		Pentachlorophenol	87-86-5	0.089	7.4	
		Phenanthrene	85-01-8	0.059	5.6	
		Pyrene	129-00-0	0.067	8.2	
		Toluene	108-88-3	0.080	10	
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30	
		Lead	7439-92-1	0.69	0.75 mg/L TCLP	
* * *						
[See Prior Text in K002 – K010]						

Table 2. Treatment Standards for Hazardous Wastes

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Non-Wastewaters	
		Common Name	CAS ² Number	Concentration in mg/L ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/L TCLP" or Technology Code ⁴	
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile.	Acetonitrile	75-05-8	5.6	384.8	
		Acrylonitrile	107-13-1	0.24	84	
		Acrylamide	79-06-1	19	23	
		Benzene	71-43-2	0.14	10	
		Cyanide (Total)	57-12-5	1.2	590	
* * *						
[See Prior Text in K013 – K060]						
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	Antimony	7440-36-0	NA	1.15 mg/L TCLP	
		Arsenic	7440-38-2	NA	5.0 mg/L TCLP	
		Barium	7440-39-3	NA	21 mg/L TCLP	
		Beryllium	7440-41-7	NA	1.22 mg/L TCLP	
		Cadmium	7440-43-9	0.69	0.11 mg/L TCLP	
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP	
		Lead	7439-92-1	0.69	0.75 mg/L TCLP	
		Mercury	7439-97-6	NA	0.025 mg/L TCLP	
		Nickel	7440-02-0	3.98	11 mg/L TCLP	
		Selenium	7782-49-2	NA	5.7 mg/L TCLP	
		Silver	7440-22-4	NA	0.14 mg/L TCLP	
		Thallium	NA 7440-28-0	NA	0.20 mg/L TCLP	
		Zinc	7440-66-6	NA	4.3 mg/L TCLP	
* * *						
[See Prior Text in K062 – K085]						
K086	Solvent wastes and sludges, caustic and washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.	Acetone	67-64-1	0.28	160	
		Acetophenone	96-86-2	0.010	9.7	
		bis(2-Ethylhexyl) phthalate	117-81-7	0.28	28	
		n-Butyl alcohol	71-36-3	5.6	2.6	
		Butylbenzyl phthalate	85-68-7	0.017	28	
		Cyclohexanone	108-94-1	0.36	NA	
		o-Dichlorobenzene	95-50-1	0.088	6.0	
		Diethyl phthalate	84-66-2	0.20	28	
		Dimethyl phthalate	131-11-3	0.047	28	
		Di-n-butyl phthalate	84-74-2	0.057	28	
		Di-n-octyl phthalate	117-84-0	0.017	28	
		Ethyl acetate	141-78-6	0.34	33	
		Ethylbenzene	100-41-4	0.057	10	
		Methanol	67-56-1	5.6	NA	

Table 2. Treatment Standards for Hazardous Wastes

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Non-Wastewaters	
		Common Name	CAS ² Number	Concentration in mg/L ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/L TCLP" or Technology Code ⁴	
		Methyl ethyl ketone	78-93-3	0.28	36	
		Methyl isobutyl ketone	108-10-1	0.14	33	
		Methylene chloride	75-09-2	0.089	30	
		Naphthalene	91-20-3	0.059	5.6	
		Nitrobenzene	98-95-3	0.068	14	
		Toluene	108-88-3	0.080	10	
		1,1,1-Trichloroethane	71-55-6	0.054	6.0	
		Trichloroethylene	79-01-6	0.054	6.0	
		Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	0.32	30	
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP	
		Cyanides (Total) ⁷	57-12-5	1.2	590	
		Lead	7439-92-1	0.69	0.75 mg/L TCLP	
* * *						
[See Prior Text in K087]						
K088	Spent potliners from primary aluminum reduction.	Acenaphthene	83-32-9	0.059	3.4	
		Anthracene	120-12-7	0.059	3.4	
		Benzo(a)anthracene	56-55-3	0.059	3.4	
		Benzo(a)pyrene	50-32-8	0.061	3.4	
		Benzo(b)fluoranthene	205-99-2	0.11	6.8	
		Benzo(k)fluoranthene	207-08-9	0.11	6.8	
		Benzo(g,h,i)perylene	191-24-2	0.0055	1.8	
		Chrysene	218-01-9	0.059	3.4	
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2	
		Fluoranthene	206-44-0	0.068	3.4	
		Indeno (1,2,3-c,d)pyrene	193-39-5	0.0055	3.4	
		Phenanthrene	85-01-8	0.059	5.6	
		Pyrene	129-00-0	0.067	8.2	
		Antimony	7440-36-0	1.9	1.15 mg/L TCLP	
		Arsenic	7440-38-2	1.4	26.1 mg/kg	
		Barium	7440-39-3	1.2	21 mg/L TCLP	
		Beryllium	7440-41-7	0.82	1.22 mg/L TCLP	
		Cadmium	7440-43-9	0.69	0.11 mg/L TCLP	
		Chromium (Total)	7440-47-3	2.77	0.60 mg/L TCLP	
		Lead	7439-92-1	0.69	0.75 mg/L TCLP	
		Mercury	7439-97-6	0.15	0.025 mg/L TCLP	

Table 2. Treatment Standards for Hazardous Wastes

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Non-Wastewaters	
		Common Name	CAS ² Number	Concentration in mg/L ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/L TCLP" or Technology Code ⁴	
		Nickel	7440-02-0	3.98	11 mg/L TCLP	
		Selenium	7782-49-2	0.82	5.7 mg/L TCLP	
		Silver	7440-22-4	0.43	0.14 mg/L TCLP	
		Cyanide (Total) ⁷	57-12-5	1.2	590	
		Cyanide (Amenable) ⁷	57-12-5	0.86	30	
		Fluoride	16984-48-8	35	N/A	
* * *						
[See Prior Text in K093 – K161]						
K169	Crude oil tank sediment from petroleum refining operations.	Benz(a)anthracene	56-55-3	0.059	3.4	
		Benzene	71-43-2	0.14	10	
		Benzo(g,h,i)perylene	191-24-2	0.0055	1.8	
		Chrysene	218-01-9	0.059	3.4	
		Ethyl Benzene	100-41-4	0.057	10	
		Fluorene	86-73-7	0.059	3.4	
		Naphthalene	91-20-3	0.059	5.6	
		Phenanthrene	81-05-8	0.059	5.6	
		Pyrene	129-00-0	0.067	8.2	
		Toluene (Methyl Benzene)	108-88-3	0.080	10	
		Xylene(s) (Total)	1330-20-7	0.32	30	
* * *						
[See Prior Text in K170 – K174]						
K175	Wastewater treatment sludge from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process.	Arsenic	7440-36-0	1.4	5.0 mg/L TCLP	
		Mercury ¹²	7438-97-6	NA	0.025 mg/L TCLP	
		pH ¹²		NA	pH≤6.0	
	All K175 wastewaters	Mercury	7438-97-6	0.15	NA	
* * *						
[See Prior Text in K176 – P064]						
P065	P065 (mMercury fulminate) nonwastewaters, regardless of their total mercury content, that are not CMBST incinerator residues or are not residues from RMERC.	Mercury	7439-97-6	NA	IMERC	
	P065 (mMercury fulminate) nonwastewaters that are either CMBST incinerator residues or are residues from RMERC; and contain greater than or equal to 260 mg/kg total mercury.	Mercury	73397439-97-6	NA	RMERC	

Table 2. Treatment Standards for Hazardous Wastes

Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Regulated Hazardous Constituent		Wastewaters	Non-Wastewaters
		Common Name	CAS ² Number		
	P065 (mMercury fulminate) nonwastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.20 mg/L TCLP
	P065 (mMercury fulminate) nonwastewaters that are CMBST Incinerator residues and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.025 mg/L TCLP
	All P065 (mercury fulminate) wastewaters.	Mercury	7439-97-6	0.15	NA
* * *					
[See Prior Text in P066 – P089]					
P092	P092 (pPhenyl mercuric acetate) nonwastewaters, regardless of their total mercury content, that are not CMBST Incinerator residues or are not residues from RMERC.	Mercury	7439-97-6	NA	IMERC; or RMERC
	P092 (pPhenyl mercuric acetate) nonwastewaters that are either CMBST Incinerator residues or are residues from RMERC; and still contain greater than or equal to 260 mg/kg total mercury.	Mercury	7439-97-6	NA	RMERC
	P092 (pPhenyl mercuric acetate) nonwastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.20 mg/L TCLP
	P092 (pPhenyl mercuric acetate) nonwastewaters that are CMBST Incinerator residues and contain less than 260 mg/kg total mercury.	Mercury	7439-97-6	NA	0.025 mg/L TCLP
	All P092 (phenyl mercuric acetate) wastewaters.	Mercury	7439-97-6	0.15	NA
* * *					
[See Prior Text in P093 – U411]					

Footnote 1 – Footnote 12 ...

[NOTE: NA means Not Applicable.]

Table 3 – Table 12 ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality,

Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 16:1057 (December 1990), amended LR 17:658 (July 1991), LR 21:266 (March 1995), LR 22:22 (January 1996), LR 22:834 (September 1996), LR 23:566 (May 1997), LR 24:301 (February 1998), LR 24:670 (April 1998), LR 24:1732 (September 1998), LR 25:451 (March 1999), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:282 (February 2000), LR

27:295 (March 2001), LR 29:322 (March 2003), LR 30:1682 (August 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 32:828 (May 2006), LR 32:**.

Chapter 33. Ground Water Protection

§3325. Ground Water Monitoring List

Table 4 lists ground water monitoring constituents.

Table 4. Ground Water Monitoring List¹

Common Name ²	CAS RN ³	Chemical Abstracts Service Index Name ⁴	Suggested Methods ⁵	PQL ($\mu\text{g/L}$) ⁶
Acenaphthene	83-32-9	Acenaphthylene, 1,2-dihydro-	8100 8270	200 10
Acenaphthylene	208-96-8	Acenaphthylene	8100 8270	200 10
Acetone	67-64-1	2-Propanone	8240	100
Acetophenone	98-86-2	Ethanone, 1-phenyl-	8270	10
Acetonitrile; Methyl cyanide	75-05-8	Acetonitrile	8015	100
2-Acetylamino-fluorene; 2-AAF	53-96-3	Acetamide, N-9H-fluoren-2-yl-	8270	10
Acrolein	107-02-8	2-Propenal	8030 8240	5 5
Acrylonitrile	107-13-1	2-Propenenitrile	8030 8240	5 5
Aldrin	309-00-2	1,4:5,8-Dimethano-naphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a,- hexa-hydro (1 α ,4 α ,4a β ,5 β ,8 α ,8a β)	8080 8270	0.05 10
Allyl chloride	107-05-1	1-Propene, 3-chloro-	8010 8240	5 100
4-Amino-biphenyl	92-67-1	[1,1'-Biphenyl]-4-amine	8270	10
Aniline	62-53-3	Benzenamine	8270	10
Anthracene	120-12-7	Anthracene	8100 8270	200 10
Antimony	(Total)	Antimony	6010 7040 7041	300 2,000 30
Aramite	140-57-8	Sulfurous acid,2-chloro-ethyl 2-[4-(1,1-dimethylethyl) phenoxy]-1-methyl-ethyl ester	8270	10
Arsenic	(Total)	Arsenic	6010 7060 7061	500 10 20
Barium	(Total)	Barium	6010 7080	20 1,000
Benzene	71-43-2	Benzene	8020 8240	2 5
Benzo[a]anthracene; Benzanthracene	56-55-3	Benz[a]anthracene	8100 8270	200 10
Benzo[b]-fluor-anthene	205-99-2	Benz[e]acephen-anthry-lene	8100 8270	200 10
Benzo[k]-fluor-anthene	207-08-9	Benzo[k]fluoranthene	8100 8270	200 10
Benzo[ghi]perylene	191-24-2	Benzo[ghi]perylene	8100 8270	200 10
Benzo[a]pyrene	50-32-8	Benzo[a]pyrene	8100 8270	200 10
Benzyl alcohol	100-51-6	Benzenemethanol	8270	20
Beryllium	(Total)	Beryllium	6010 7090	3 50
alpha-BHC	319-84-6	Cyclohexane,1,2,3,4,5, 6-hexachloro-, (1 α ,2 α ,3 β ,4 α ,5 β ,6 β)	8080 8250	0.05 10
beta-BHC	319-85-7	Cyclohexane, 1,2,3,4,5, 6-hexachloro-, (1 α ,2 β ,3 α ,4 β ,5 α ,6 β)	8080 8250	0.05 40

Table 4. Ground Water Monitoring List¹

Common Name²	CAS RN³	Chemical Abstracts Service Index Name⁴	Suggested Methods⁵	PQL ($\mu\text{g/L}$)⁶
delta-BHC	319-86-8	Cyclohexane, 1,2,3,4,5, 6-hexachloro-, (1 α ,2 α ,3 α , 4 β ,5 α ,6 β)-	8080 8250	0.1 30
gamma-BHC; Lindane	58-89-9	Cyclohexane, 1,2,3,4,5, 6-hexachloro-, (1 α ,2 α ,3 β ,4 α ,5 α ,6 β)	8080 8250	0.05 40
Bis(2-chloroethoxy) methane-	111-91-1	Ethane, 1,1'-(methyl- enebis(oxy)]bis[2-chloro-	8270	40
Bis(2-chloroethyl) ether	111-44-4	Ethane, 1,1'-oxybis[2- chloro-	8270	40
Bis(2-chloro-1-methylethyl)ether; 2,2'-Dichlorodi-isopropyl ether	108-60-1	Propane, 2,2'-oxybis [1-chloro-	8010 8270	100 40
Bis(2-ethyl-hexyl) phthalate	117-81-7	1,2-Benzene dicarboxylic acid,bis(2-ethylhexyl) ester	8060 8270	20 40
Bromodichloro- methane	75-27-4	Methane, bromodichloro-	8010 8240	4 5
Bromoform; Tri-bromomethane	75-25-2	Methane, tribromo-	8010 8240	2 5
4-Bromophenyl-phenyl ether	101-55-3	Benzene,1-bromo-4- phenoxy-	8270	40
Butyl benzyl phthalate;Benzyl butyl phthalate	85-68-7	1,2-Benzene dicarboxylic acid, butyl phenyl- methyl ester	8060 8270	5 40
Cadmium	(Total)	Cadmium	6010 7130 7131	40 50 4
Carbon disulfide	75-15-0	Carbon disulfide	8240	5
Carbon tetrachloride	56-23-5	Methane, tetrachloro-	8010 8240	4 5
Chlordane	57-74-9	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octa-chloro-2,3,3a,4,7,7a-hexahydro-	8080 8250	0.1 40
p-Chloroaniline	106-47-8	Benzeneamine, 4 chloro-	8270	20
Chlorobenzene	108-90-7	Benzene, chloro-	8010 8020	2 2
Chloro- benzilate	510-15-6	Benzeneacetic acid, 4-chloro- α -(4-chlorophenyl)- α -hydroxy-, ethyl ester	8270	40
p-Chloro- m-cresol	59-50-7	Phenol, 4-chloro-3- methyl-	8040 8270	5 20
Chloroethane; Ethyl chloride	75-00-3	Ethane, chloro-	8010 8240	5 40
Chloroform	67-66-3	Methane, trichloro-	8010 8240	0.5 5
2-Chloro- naphthalene	91-58-7	Naphthalene, 2-chloro-	8120 8270	40 40
2-Chlorophenol	95-57-8	Phenol, 2-chloro-	8040 8270	5 40
4-Chlorophenyl phenyl ether	7005-72-3	Benzene, 1-chloro-4- phenoxy-	8270	40
Chloroprene	126-99-8	1,3-Butadiene, 2-chloro-	8010 8240	50 5
Chromium	(Total)	Chromium	6010 7190 7191	70 500 40
Chrysene	218-01-9	Chrysene	8100 8270	200 40
Cobalt	(Total)	Cobalt	6010 7200 7201	70 500 40
Copper	(Total)	Copper	6010 7210	60 200
m-Cresol	108-39-4	Phenol, 3-methyl-	8270	40
o-Cresol	95-48-7	Phenol, 2-methyl-	8270	40
p-Cresol	106-44-5	Phenol, 4-methyl-	8270	40
Cyanide	57-12-5	Cyanide	9010	40
2,4-D; 2,4-Di-chlorophenoxy-acetic acid	94-75-7	Acetic acid, (2,4- dichlorophenoxy)-	8150	40

Table 4. Ground Water Monitoring List¹

Common Name²	CAS RN³	Chemical Abstracts Service Index Name⁴	Suggested Methods⁵	PQL ($\mu\text{g/L}$)⁶
4,4'-DDD	72-54-8	Benzene, 1,1'-(2,2- dichloroethylidene) bis[4-chloro-	8080 8270	0.1 +0
4,4'-DDE	72-55-9	Benzene, 1,1'-(dichloro- ethenylidene) bis[4- chloro-	8080 8270	0.05 +0
4,4'-DDT	50-29-3	Benzene, 1,1'-(2,2,2- trichloroethylidene) bis[4-chloro-	8080 8270	0.1 +0
Diallate	2303-16-4	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3-dichloro-2- propenyl)ester	8270	+0
Dibenz[a,h] anthracene	53-70-3	Dibenz[a,h]anthracene	8100 8270	200 +0
Dibenzofuran	132-64-9	Dibenzofuran	8270	+0
Dibromochloro- methane; Chlorodi- bromomethane	124-48-1	Methane, dibromo- chloro-	8010 8240	+ §
1,2-Dibromo-3- chloroproppane; DBCP	96-12-8	Propane, 1,2-dibromo- 3-chloro-	8010 8240 8270	+00 § +0
1,2-Dibromoethane; Ethylene dibromide	106-93-4	Ethane, 1,2-dibromo-	8010 8240	+0 §
Di-n-butyl phthalate	84-74-2	1,2-Benzenedicarboxylic acid, dibutyl ester	8060 8270	§ +0
o-Dichlorobenzene	95-50-1	Benzene, 1,2-dichloro-	8010 8020 8120 8270	2 § +0 +0
m-Dichlorobenzene	541-73-1	Benzene, 1,3-dichloro-	8010 8020 8120 8270	§ § +0 +0
p-Dichlorobenzene	106-46-7	Benzene, 1,4-dichloro-	8010 8020 8120 8270	2 § +5 +0
3,3'-Dichloro- benzidine	91-94-1	[1,1'-Biphenyl]4,4'- diamine, 3,3'-dichloro-	8270	20
trans-1,4- Dichloro-2-butene	110-57-6	2-Butene,1,4- dichloro-, (E)-	8240	§
Dichlorodifluoro- methane	75-71-8	Methane, dichloro- difluoro-	8010 8240	+0 §
1,1-Dichloro-ethane	75-34-3	Ethane,1,1-dichloro-	8010 8240	+ §
1,2-Dichloro-ethane; Ethylene dichloride	107-06-2	Ethane, 1,2-dichloro-	8010 8240	0.5 §
1,1-Dichloro- ethylene; Vinylidene chloride	75-35-4	Ethene, 1,1-dichloro-	8010 8240	+ §
trans-1,2- Dichloroethylene	156-60-5	Ethene,1,2-dichloro-(E)-	8010 8240	+ §
2,4-Dichlorophenol	120-83-2	Phenol, 2,4-dichloro-	8040 8270	§ +0
2,6-Dichlorophenol	87-65-0	Phenol, 2,6-dichloro-	8270	+0
1,2-Dichloro-propane	78-87-5	Propane, 1,2- dichloro-	8010 8240	0.5 §
cis-1,3- Dichloro- propene	10061-01-5	1-Propene, 1,3- dichloro-,(Z)-	8010 8240	20 §
trans-1,3- Dichloropropene	10061-02-6	1-Propene, 1,3- dichloro-, (E)-	8010 8240	§ §
Dieldrin	60-57-1	2,7:3,6-Dimethanonaphth [2,3- b]oxirene,3,4,5, 6,9,9- hexachloro- 1a,2,2a,3,6,6a,7,7a-octahydro-, (1aa,2B,2aa,3B,6B,6aa,7B,7aa)-	8080 8270	0.05 +0
Diethyl phthalate	84-66-2	1,2-Benzenedicarboxylic acid, diethyl ester	8060 8270	§ +0
O,O-Diethyl O-2-pyrazinyl phosphorothioate; Thionazin	297-97-2	Phosphorothioic acid, O,O-diethyl O- pyrazinyl ester	8270	+0
Dimethoate	60-51-5	Phosphorodithioic acid, O,O-dimethyls-[2- (methylamino)-2-oxoethyl] ester	8270	+0

Table 4. Ground Water Monitoring List¹

Common Name²	CAS RN³	Chemical Abstracts Service Index Name⁴	Suggested Methods⁵	PQL ($\mu\text{g/L}$)⁶
p-(Dimethyl-amino)azobenzene	60-11-7	Benzenamine, N,N-di-methyl-4-(phenylazo)-	8270	+0
7,12-Dimethyl- benz[a]anthracene	57-97-6	Benz[a]anthracene, 7,12-dimethyl-	8270	+0
3,3'-Dimethyl- benzidine	119-93-7	[1,1'-Biphenyl]-4,4'- diamine, 3,3'-dimethyl-	8270	+0
alpha, alpha- Dimethyl-phenethylamine	122-09-8	Benzeneethanamine, α,α -dimethyl-	8270	+0
2,4-Dimethyl- phenol	105-67-9	Phenol, 2,4-dimethyl-	8040	5
Dimethyl phthalate	131-11-3	1,2-Benzenedicarboxylic acid, dimethyl ester	8060 8270	5 +0
m-Dinitrobenzene	99-65-0	Benzene, 1,3-dinitro-	8270	+0
4,6-Dinitro-o- cresol	534-52-1	Phenol, 2-methyl-4,6- dinitro-	8040 8270	+50 50
2,4-Dinitrophenol	51-28-5	Phenol, 2,4-dinitro-	8040 8270	+50 50
2,4-Dinitro- toluene	121-14-2	Benzene, 1-methyl-2, 4-dinitro-	8090 8270	0.2 +0
2,6-Dinitro- toluene	606-20-2	Benzene, 2-methyl- 1,3-dinitro-	8090 8270	0.1 +0
Dinoseb; DNBP; 2-sec-Butyl- 4,6-dinitrophenol	88-85-7	Phenol, 2-(1-methyl- propyl)-4,6-dinitro-	8150 8270	+ +0
Di-n-octyl phthalate	117-84-0	1,2-Benzenedicarboxylic acid, dioctyl ester	8060 8270	30 +0
1,4-Dioxane	123-91-1	1,4-Dioxane	8015	+50
Diphenylamine	122-39-4	Benzenamine, N-phenyl-	8270	+0
Disulfoton	298-04-4	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl]ester	8140 8270	2 +0
Endosulfan I	959-98-8	6,9-Methano-2,4,3- benzodioxathiepin 6,7,8, 9,10,10-hexachloro-1,5, 5a,6,9,9a-hexahydro-, 3-oxide, (3 α ,5a β ,6a,9a,9a β)-	8080 8250	0.1 +0
Endosulfan II	3213-65-9	6,9-Methano-2,4,3- benzodioxathiepin, 6,7,8,9,10,10-hexa-chloro- 1,5,5a,6,9, 9a-hexahydro-, 3-oxide, (3 α ,5a β ,6 β ,9a,9aa)-	8080	0.05
Endosulfan sulfate	1031-07-8	6,9-Methano-2,4,3- benzodioxathiepin, 6,7,8,9,10,10-hexa-chloro-1,5,5a,6,9,9a-hexahydro-, 3,3-dioxide	8080 8270	0.5 +0
Endrin	72-20-8	2,7,3,6-Dimethanonaphth[2,3-b]oxirene,3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aa,2 β ,2a β , 3a,6a,6a β , 7 β ,7aa)-	8080 8250	0.1 +0
Endrin aldehyde	7421-93-4	1,2,4-Methenocyclopenta[cd] pentalene- 5-carboxaldehyde, 2,2a,3,3,4,7-hexachlorodecahydro-,(1 α ,2 β ,2a β ,4 β ,4a β ,5 β ,6a β ,6b β ,7R*)-	8080 8270	0.2 +0
Ethylbenzene	100-41-4	Benzene, ethyl-	8020 8240	2 5
Ethyl methacrylate	97-63-2	2-Propenoic acid, 2-methyl-, ethyl ester	8015 8240 8270	+0 5 +0
Ethyl methane- sulfonate	62-50-0	Methanesulfonic acid, ethyl ester	8270	+0
Famphur	52-85-7	Phosphorothioic acid, O-[4-[(dimethylamino) sulfonyl]phenyl]-O,O-dimethyl ester	8270	+0
Fluoranthene	206-44-0	Fluoranthene	8100	200
Fluorene	86-73-7	9H-Fluorene	8100 8270	200 +0
Heptachlor	76-44-8	4,7-Methano-1H-indene, 1,4,5,6,7,8,8-hepta-chloro-3a,4,7,7a-tetrahydro-	8080 8270	0.05 +0
Heptachlor epoxide	1024-57-3	2,5-Methano-2H-indeno [1,2-b]oxirene,2,3,4,5, 6,7,7-heptachloro-1a,1b,5,5a, 6,6ahexa-hydro-,(1aa,1b β ,2a, 5a,5a β ,6 β ,6aa)	8080 8270	+ +0

Table 4. Ground Water Monitoring List¹

Common Name²	CAS RN³	Chemical Abstracts Service Index Name⁴	Suggested Methods⁵	PQL ($\mu\text{g/L}$)⁶
Hexachlorobenzene	118-74-1	Benzene, hexachloro-	8120 8270	0.5 +0
Hexachlorobutadiene	87-68-3	1,3-Butadiene, 1,1,2,3,4,4- hexachloro-	8120 8270	5 +0
Hexachloro-cyclopentadiene	77-47-4	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	8120 8270	5 +0
Hexachloroethane	67-72-1	Ethane, hexachloro-	8120 8270	0.5 +0
Hexachlorophene	70-30-4	Phenol,2,2'-methyl-enebis [3,4,6- tri-chloro-	8270 8270	+0 +0
Hexachloropropene	1888-71-7	1-Propene,1,1,2,3,3,3-hexachloro	8270	+0
2-Hexanone	591-78-6	2-Hexanone	8240	50
Indeno(1,2,3- cd) pyrene	193-39-5	Indeno[1,2,3-cd] pyrene	8100 8270	200 +0
Isobutyl alcohol	78-83-1	1-Propanol, 2-methyl-	8015	50
Isodrin	465-73-6	1,4,5,8-Dimethano-naphthalene,1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro- (1a,4a,4a β ,5 β ,8 β ,8a β) -	8270	+0
Isophorone	78-59-1	2-Cyclohexen-1-one,3,5,5-trimethyl-	8090 8270	60 +0
Isosafrole	120-58-1	1,3-Benzodioxole,5-(1- propenyl)-	8270	+0
Kepone	143-50-0	1,3,4-Metheno-2H-cylo-buta-[cd]pentalen-2-one,1,1a,3,3a,4,5,5a,5b,6-decachloroocta-hydro-	8270	+0
Lead	(Total)	Lead	6010 7420 7421	40 1,000 +0
Mercury	(Total)	Mercury	7470	2
Methacrylonitrile	126-98-7	2-Propenenitrile, 2-methyl-	8015 8240	5 5
Methapyrilene	91-80-5	1,2,Ethanediamine, N,N- dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-	8270	+0
Methoxychlor	72-43-5	Benzene,1,1'-(2,2,2, trichloroethylidene) bis[4-methoxy-	8080 8270	2 +0
Methyl bromide; Bromomethane	74-83-9	Methane, bromo-	8010 8240	20 +0
Methyl chloride; Chloromethane	74-87-3	Methane, chloro-	8010 8240	+ +0
3-Methyl-cholanthrene	56-49-5	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	8270	+0
Methylene bromide; Dibromomethane	74-95-3	Methane, dibromo-	8010 8240	+5 5
Methylene chloride; Dichloromethane	75-09-2	Methane, dichloro-	8010 8240	5 5
Methyl ethyl ketone; MEK	78-93-3	2-Butanone	8015 8240	+0 +00
Methyl iodide; Iodomethane	74-88-4	Methane, iodo-	8010 8240	40 5
Methylmethacrylate	80-62-6	2-Propenoic acid, 2- methyl-, methyl ester	8015 8240	2 5
Methyl methanesulfonate	66-27-3	Methanesulfonic acid, methyl ester	8270	+0
2-Methyl-naphthalene	91-57-6	Naphthalene, 2-methyl-	8270	+0
Methyl parathion; Parathion methyl	298-00-0	Phosphorothioic acid, O,O-dimethyl O-(4-nitrophenyl)ester	8140 8270	0.5 +0
4-Methyl-2- pentanone; Methyl isobutyl ^{Methyl} isobutylketone	108-10-1	2-Pentanone, 4-methyl	8015 8240	5 50
Naphthalene	91-20-3	Naphthalene	8100 8270	200 +0
1,4-Naphthoquinone	130-15-4	1,4-Naphthalene-dione	8270	+0
1-Naphthylamine	134-32-7	1-Naphthalenamine	8270	+0
2-Naphthylamine	91-59-8	2-Naphthalenamine	8270	+0

Table 4. Ground Water Monitoring List¹

Common Name²	CAS RN³	Chemical Abstracts Service Index Name⁴	Suggested Methods⁵	PQL ($\mu\text{g/L}$)⁶
Nickel	(Total)	Nickel	6010 7520	50 400
o-Nitroaniline	88-74-4	Benzeneamine, 2-nitro-	8270	50
m-Nitroaniline	99-09-2	Benzeneamine, 3-nitro-	8270	50
p-Nitroaniline	100-01-6	Benzeneamine, 4-nitro-	8270	50
Nitrobenzene	98-95-3	Benzene, nitro-	8090 8270	40 10
o-Nitrophenol	88-75-5	Phenol, 2-nitro-	8040 8270	5 10
p-Nitrophenol	100-02-7	Phenol, 4-nitro-	8040	10
4-Nitroquinoline, 1-oxide	56-57-5	Quinoline, 4-nitro-, 1-oxide	8270	10
N-Nitrosodi-n- butylamine	924-16-3	1-Butanamine, N-butyl-N-nitroso	8270	10
N-Nitroso-diethylamine	55-18-5	Ethanamine, N-ethyl- N-nitroso	8270	10
N-Nitroso-dimethylamine	62-75-9	Methanamine, N- methyl-N-nitroso-	8270	10
N-Nitroso-diphenylamine	86-30-6	Benzeneamine, N-nitroso-N-phenyl-	8270	10
N-Nitrosodipropyl-amine;Di-n-propyl-nitrosamine	621-64-7	1-Propanamine, N-nitroso-N-propyl-	8270	10
N-Nitrosom- ethylethylamine	10595-95-6	Ethanamine, N-methyl- N-nitroso-	8270	10
N-Nitrosomor-pholine	59-89-2	Morpholine, 4-nitroso-	8270	10
N-Nitrosopiperi-dine	100-75-4	Piperidine, 1- nitroso-	8270	10
N-Nitrosopyrroli-dine	930-55-2	Pyrrolidine, 1- nitroso-	8270	10
5-Nitro-o- toluidine	99-55-8	Benzeneamine,2-methyl-5-nitro-	8270	10
Parathion	56-38-2	Phosphorothioic acid, O,O-diethyl-O-(4-nitro-phenyl) ester	8270	10
Polychlorinated biphenyls; PCBs	See Note 57	1,1'-Biphenyl, chloro derivatives	8080 8250	50 100
Polychlorinated dibenzo-p-dioxins; PCDDs	See Note 68	Dibenzo[b,e][1,4]dioxin, chloro derivatives	8280	0.01
Polychlorinated dibenzofurans; PCDFs	See Note 79	Dibenzofuran, chloro derivatives	8280	0.01
Pentachlorobenzene	608-93-5	Benzene, pentachloro-	8270	10
Pentachloroethane	76-01-7	Ethane, pentachloro-	8240 8270	5 10
Pentachloro- nitrobenzene	82-68-8	Benzene, pentachloro- nitro-	8270	10
Pentachlorophenol	87-86-5	Phenol, pentachloro-	8040 8270	5 50
Phenacetin	62-44-2	Acetamide, N-(4- ethoxyphenyl)	8270	10
Phenanthrene	85-01-8	Phenanthrene	8100 8270	200 10
Phenol	108-95-2	Phenol	8040 8270	5 10
p-Phenylenediamine	106-50-3	1,4- Benzenediamine	8270	10
Phorate	298-02-2	Phosphorodithioic acid, O,O-diethyl S- [(ethylthio)methyl] ester	8140 8270	2 10
2-Picoline	109-06-8	Pyridine, 2-methyl-	8240 8270	5 10
Pronamide	23950-58-5	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-pro-pynyl)-	8270	10
Propionitrile; Ethyl cyanide	107-12-0	Propanenitrile	8015 8240	60 5
Pyrene	129-00-0	Pyrene	8100 8270	200 10
Pyridine	110-86-1	Pyridine	8240 8270	5 10
Safrole	94-59-7	1,3-Benzodioxole, 5- (2-propenyl)-	8270	10
Selenium	(Total)	Selenium	6010 7740 7741	750 20 20
Silver	(Total)	Silver	6010 7760	70 100
Silvex; 2,4,5-TP	93-72-1	Propanoic acid,2-(2,4, 5-trichlorophenoxy)-	8150	2

Table 4. Ground Water Monitoring List¹				
Common Name²	CAS RN³	Chemical Abstracts Service Index Name⁴	Suggested Methods⁵	PQL ($\mu\text{g/L}$)⁶
Styrene	100-42-5	Benzene, ethenyl-	8020 8240	4 5
Sulfide	18496-25-8	Sulfide	9030	10,000
2,4,5-T; 2,4,5-, Trichlorophenoxy-acetic acid	93-76-5	Acetic acid, (2,4,5- trichlorophenoxy)-	8150	2
2,3,7,8-TCDD; 2,3,7,8-Tetra-chlorodibenzo-p-dioxin	1746-01-6	Dibenzo[b,e][1,4]dioxin 2,3,7,8-tetrachloro-	8280	0.005
1,2,4,5-Tetra- chlorobenzene	95-94-3	Benzene, 1,2,4,5-tetrachloro-	8270	40
1,1,1,2-Tetra- chloroethane	630-20-6	Ethane, 1,1,1,2- tetrachloro-	8010 8240	5 5
1,1,2,2-Tetra- chloroethane	79-34-5	Ethane, 1,1,2,2- tetrachloro-	8010 8240	0.5 5
Tetrachloro- ethylene; Perchloroethylene; Tetrachloroethene	127-18-4	Ethene, tetrachloro-	8010 8240	0.5 5
2,3,4,6-Tetra- chlorophenol	58-90-2	Phenol, 2,3,4,6- tetrachloro-	8270	40
Tetraethyl dithio-pyrophosphate; Sulfotep	3689-24-5	Thiodiphosphoric acid ([$(\text{HO})_2\text{P}(\text{S})_2\text{O}$]), tetraethyl ester	8270	40
Thallium	(Total)	Thallium	6010 7840 7841	400 1,000 40
Tin	(Total)	Tin	7870	8,000
Toluene	108-88-3	Benzene, methyl-	8020 8240	2 5
o-Toluidine	95-53-4	Benzenamine, 2-methyl-	8270	40
Toxaphene	8001-35-2	Toxaphene	8080 8250	2 40
1,2,4-Tri-chlorobenzene	120-82-1	Benzene, 1,2,4-trichloro-	8270	40
1,1,1-Tri-chloroethane; Methylchloroform	71-55-6	Ethane, 1,1,1-trichloro-	8240	5
1,1,2-Tri- chloroethane	79-00-5	Ethane, 1,1,2-trichloro-	8010 8240	0.2 5
Trichloro- ethylene; Trichloroethene	79-01-6	Ethene, trichloro-	8010 8240	4 5
Trichlorofluoro-methane	75-69-4	Methane, trichlorofluoro-	8010 8240	40 5
2,4,5-Tri- chlorophenol	95-95-4	Phenol, 2,4,5-trichloro-	8270	40
2,4,6-Tri- chlorophenol	88-06-2	Phenol, 2,4,6-trichloro-	8040 8270	5 40
1,2,3-Tri- chloroproppane	96-18-4	Propane, 1,2,3-tri-chloro-	8010 8240	40 5
O,O,O-Triethyl phosphorothioate	126-68-1	Phosphorothioic acid, O,O,O-triethyl ester	8270	40
sym-Trinitro- benzene	99-35-4	Benzene, 1,3,5- trinitro	8270	40
Vanadium	(Total)	Vanadium	6010 7910 7911	80 2,000 40
Vinyl acetate	108-05-4	Acetic acid, ethenyl ester	8240	5
Vinyl chloride	75-01-4	Ethene, chloro-	8010 8240	2 40
Xylene (total)	1330-20-7	Benzene, dimethyl-	8020 8240	5 5
Zinc	(Total)	Zinc	6010 7950	20 50

¹The regulatory requirements pertain only to the list of substances; the right hand columns (Methods and PQL) are given for informational purposes only. See also footnotes 5 and 6.

²Common names are those widely used in government regulations, scientific publications, and commerce; synonyms exist for many chemicals.

³Chemical Abstracts Service registry number. Where "Total" is entered, all species in the ground water that contain this element are included.

⁴CAS index names are those used in the ninth Cumulative Index.

⁵Suggested Methods refer to analytical procedure numbers used in EPA Report SW 846, *Test Methods for Evaluating Solid Waste*, Third Edition. Analytical details can be found in SW 846 and in documentation on file at the agency. The packed column gas chromatography methods 8010, 8020, 8030, 8040, 8060, 8080, 8090, 8110, 8120, 8140, 8150, 8240, and 8250 were promulgated methods through Update IIIB of SW 846 and, as of Update III, the agency has replaced these methods with "capillary column GC methods," as the suggested methods. Caution: The methods listed are representative SW 846 procedures and may not always be the most suitable method(s) for monitoring an analyte under the regulations.

⁶Practical Quantitation Limits (PQLs) are the lowest concentrations of analytes in ground waters that can be reliably determined within specified limits of precision and accuracy by the indicated methods under routine laboratory operating conditions. The PQLs listed are generally stated to one significant figure. Caution: The PQL values in many cases are based only on a general estimate for the method and not on a determination for individual compounds; PQLs are not a part of the regulation.

⁵⁷Polychlorinated biphenyls (CAS RN 1336-36-3); this category contains congener chemicals, including constituents of Aroclor-1016 (CAS RN 12674-11-2), Aroclor-1221 (CAS RN 11104-28-2), Aroclor-1232 (CAS RN 11141-16-5), Aroclor-1242 (CAS RN 53469-21-9), Aroclor-1248 (CAS RN 12672-29-6), Aroclor-1254 (CAS RN 11097-69-1), and Aroclor-1260 (CAS RN 11096-82-5). The PQL shown is an averaged value for PCB congeners.

⁶⁸This category contains congener chemicals, including tetrachlorodibenzo-p-dioxins (see also 2,3,7,8-TCDD), pentachlorodibenzo-p-dioxins, and hexachlorodibenzo-p-dioxins. The PQL shown is an average value for PCDD congeners.

⁷⁹This category contains congener chemicals, including tetrachlorodibenzofurans, pentachlorodibenzofurans, and hexachlorodibenzofurans. The PQL shown is an average value for PCDF congeners.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2180 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Hazardous Waste Division, LR 16:399 (May 1990), amended LR 18:1256 (November 1992), amended by the Office of Waste Services, Hazardous Waste Division, LR 24:1742 (September 1998), amended by the Office of the Secretary, Legal Affairs Division, LR 32:**.

Part IX. Water Quality

Subpart 1. Water Pollution Control

Chapter 1. General Provisions

§107. Definitions

* * *

Designated Water Use—Repealed. a use of the waters of the state as established by the Water Quality Standards. These uses include, but are not limited to, recreation, propagation of fish and other aquatic life and wildlife including shellfish, public water supply, agricultural activities, and outstanding natural resource waters.

* * *

Primary Contact—Repealed. any recreational or other water use in which there is prolonged and intimate contact with the water involving considerable risk of ingesting water in quantities sufficient to pose a significant health hazard, such as swimming, water skiing, skin diving, wading, and other similar activities.

* * *

Secondary Contact—Repealed. any recreational or other water use in which contact with the water is either incidental or accidental and in which the probability of ingesting appreciable

~~quantities of water is minimal, such as fishing, commercial and recreational boating, and any limited contact incident to shoreline activity.~~

* * *

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular Section 2074(B)(3) and (B)(4).

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Water Resources, LR 11:1066 (November 1985), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2538 (November 2000), LR 30:1473 (July 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 32:**.

Subpart 2. The Louisiana Pollutant Discharge Elimination System (LPDES) Program

Chapter 71. Appendices

§7107. Appendix D—Permit Application Testing Requirements (LAC 33:IX.2501)

Table I. Testing Requirements for Organic Toxic Pollutants by Industrial Category for Existing Dischargers				
Industrial Category	GC/MS Fraction⁽¹⁾			
	Volatile	Acid	Base/Neutral	Pesticides
* * *				
[See Prior Text in Adhesives and Sealants – Petroleum Refining]				
Pharmaceutical Preparations	*	*	*	
* * *				
[See Prior Text in Photographic Equipment and Supplies – Timber Products Processing]				

⁽¹⁾ The toxic pollutants in each fraction are listed in Table II.

* Testing required.

Table II. – Table V. Editorial Note. ...

For the duration of the suspensions, therefore, Table I effectively reads:

Table I. Testing Requirements for Organic Toxic Pollutants by Industry Category				
Industrial Category	GC/MS Fraction⁽¹⁾			
	Volatile	Acid	Base/Neutral	Pesticides
* * *				
[See Prior Text in Adhesives and Sealants - Foundries]				
Gum and Wood (All Subparts except D and F)	*	*		
Subpart D—tall oil rosin	*	*	*	
Subpart F—rosin-based derivatives	*	*	*	
Inorganic Chemicals Manufacturing	*	*	*	
* * *				
[See Prior Text in Iron and Steel Manufacturing - Petroleum Refining]				
Pharmaceutical Preparations	*	*	*	
Photographic Equipment and Supplies	*	*	*	
* * *				
[See Prior Text in Plastic and Synthetic Materials Manufacturing - Timber Products Processing]				

⁽¹⁾ The pollutants in each fraction are listed in Item V-C in the NPDES permit application.

*Testing required.

Table I.A. – Footnote †...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq., and in particular Section 2074(B)(3) and (B)(4).

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Water Resources, LR 21:945 (September 1995), repromulgated by the Office of Environmental Assessment, Environmental Planning Division, LR 30:233 (February 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 32:**.

Part XI. Underground Storage Tanks

Chapter 3. Registration Requirements, Standards, and Fee Schedule

§301. Registration Requirements

A. – B.1. ...

- a. tank and piping installation in accordance with LAC 33:XI.303.AB.4;
 - b. cathodic protection of steel tanks and piping in accordance with LAC 33:XI.303.AB.1-2;
- B.1.c. – C.4. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Underground Storage Tank Division, LR 11:1139 (December 1985), amended LR 16:614 (July 1990), LR 17:658 (July 1991), LR 18:727 (July 1992), LR 20:294 (March 1994), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2558 (November 2000), LR 28:475 (March 2002), amended by the Office of Environmental Assessment, LR 31:1066 (May 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2520 (October 2005), repromulgated LR 32:393 (March 2006), amended LR 32:**.

Part XV. Radiation Protection

Chapter 1. General Provisions

§102. Definitions and Abbreviations

As used in these regulations, these terms have the definitions set forth below. Additional definitions used only in a certain chapter may be found in that chapter.

* * *

Byproduct Material—

1. ...
2. the tailings or wastes produced by the extraction or concentration of uranium or thorium (R.S. 30:21035) from ore processed primarily for its source material content,

including discrete surface wastes resulting from uranium or thorium solution extraction processes. Underground ore bodies depleted by these solution extraction operations do not constitute byproduct material within this definition.

* * *

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Nuclear Energy Division, LR 13:569 (October 1987), amended by Office of Air Quality and Radiation Protection, Radiation Protection Division, LR 18:34 (January 1992), LR 19:1421 (November 1993), LR 20:650 (June 1994), LR 22:967 (October 1996), LR 24:2089 (November 1998), repromulgated LR 24:2242 (December 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2563 (November 2000), LR 26:2767 (December 2000), LR 30:1171, 1188 (June 2004), amended by the Office of Environmental Assessment, LR 31:44 (January 2005), LR 31:1064 (May 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 32:811 (May 2006), LR 32:*.

Chapter 3. Licensing of Radioactive Material

Subchapter Z. Appendices

§399. Schedules A and B, and Appendices A, B, C, D, E, and F

Schedule A. – Note 4. ...

Schedule B Exempt Quantities	
Byproduct Material	Microcuries
Antimony 122 (Sb 122)	100
Antimony 124 (Sb 124)	10
Antimony 125 (Sb 125)	10
Arsenic 73 (As 73)	100
Arsenic 74 (As 74)	10
Arsenic 76 (As 76)	10
Arsenic 77 (As 77)	100
Barium 131 (Ba 131)	10
Barium 133 (Ba 133)	10
Barium 140 (Ba 140)	10
Bismuth 210 (Bi 210)	1
Bromine 82 (Br 82)	10
Cadmium 109 (Cd 109)	10
Cadmium 115m (Cd 115m)	10
Cadmium 115 (Cd 115)	100
Calcium 45 (Ca 45)	10
Calcium 47 (Ca 47)	10
Carbon 14 (C 14)	100
Cerium 141 (Ce 141)	100
Cerium 143 (Ce 143)	100
Cerium 144 (Ce 144)	1
Cesium 131 (Cs 131)	1,000
Cesium 134m (Cs 134m)	100
Cesium 134 (Cs 134)	1
Cesium 135 (Cs 135)	10
Cesium 136 (Cs 136)	10
Cesium 137 (Cs 137)	10

Schedule B Exempt Quantities	
Byproduct Material	Microcuries
Chlorine 36 (Cl 36)	10
Chlorine 38 (Cl 38)	10
Chromium 51 (Cr 51)	1,000
Cobalt 58m (Co 58m)	10
Cobalt 58 (Co 58)	10
Cobalt 60 (Co 60)	1
Copper 64 (Cu 64)	100
Dysprosium 165 (Dy 165)	10
Dysprosium 166 (Dy 166)	100
Erbium 169 (Er 169)	100
Erbium 171 (Er 171)	100
Europium 152 9.2h (Eu 152 9.2h)	100
Europium 152 13 yr (Eu 152 13 yr)	1
Europium 154 (Eu 154)	1
Europium 155 (Eu 155)	10
Fluorine 18 (F 18)	1,000
Gadolinium 153 (Gd 153)	10
Gadolinium 159 (Gd 159)	100
Gallium 67 (Ga 67)	100
Gallium 72 (Ga 72)	10
Germanium 71 (Ge 71)	100
Gold 198 (Au 198)	100
Gold 199 (Au 199)	100
Hafnium 181 (Hf 181)	10
Holmium 166 (Ho 166)	100
Hydrogen 3 (H 3)	1,000
Indium 113m (In 113m)	100
Indium 114m (In 114m)	10
Indium 115m (In 115m)	100
Indium 115 (In 115)	10
Iodine 125 (I 125)	1
Iodine 126 (I 126)	1
Iodine 129 (I 129)	0.1
Iodine 131 (I 131)	1
Iodine 132 (I 132)	10
Iodine 133 (I 133)	1
Iodine 134 (I 134)	10
Iodine 135 (I 135)	10
Iridium 192 (Ir 192)	10
Iridium 194 (Ir 194)	100
Iron 55 (Fe 55)	100
Iron 59 (Fe 59)	10
Krypton 85 (Kr 85)	100
Krypton 87 (Kr 87)	10
Lanthanum 40 (La 140)	10
Lutetium 177 (Lu 177)	100
Manganese 52 (Mn 52)	10
Manganese 54 (Mn 54)	10
Manganese 56 (Mn 56)	10
Mercury 197m (Hg 197m)	100
Mercury 197 (Hg 197)	100
Mercury 203 (Hg 203)	10
Molybdenum 99 (Mo 99)	100
Neodymium 147 (Nd 147)	100
Neodymium 149 (Nd 149)	100
Nickel 59 (Ni 59)	100
Nickel 63 (Ni 63)	10
Nickel 65 (Ni 65)	100
Niobium 93m (Nb 93m)	10
Niobium 95 (Nb 95)	10
Niobium 97 (Nb 97)	10

Schedule B Exempt Quantities	
Byproduct Material	Microcuries
Osmium 185 (Os 185)	10
Osmium 191m (Os 191m)	100
Osmium 191 (Os 191)	100
Osmium 193 (Os 193)	100
Palladium 103 (Pd 103)	100
Palladium 109 (Pd 109)	100
Phosphorus 32 (P 32)	10
Platinum 191 (Pt 191)	100
Platinum 193m (Pt 193m)	100
Platinum 193 (Pt 193)	100
Platinum 197m (Pt 197m)	100
Platinum 97 (Pt 197)	100
Polonium 210 (P 210)	0.1
Potassium 42 (K 42)	10
Praseodymium 142 (Pr 142)	100
Praseodymium 143 (Pr 143)	100
Promethium 147 (Pm 147)	10
Promethium 149 (Pm 149)	10
Rhenium 186 (Re 186)	100
Rhenium 188 (Re 188)	100
Rhodium 103m (Rh 103m)	100
Rhodium 105 (Rh 105)	100
Rubidium 86 (Rb 86)	10
Rubidium 87 (Rb 87)	10
Ruthenium 97 (Ru 97)	100
Ruthenium 103 (Ru 103)	10
Ruthenium 105 (Ru 105)	10
Ruthenium 106 (Ru 106)	1
Samarium 151 (Sm 151)	10
Samarium 153 (Sm 153)	100
Scandium 46 (Sc 46)	10
Scandium 47 (Sc 47)	100
Scandium 48 (Sc 48)	10
Selenium 75 (Se 75)	10
Silicon 31 (Si 31)	100
Silver 105 (Ag 105)	10
Silver 110m (Ag 110m)	1
Silver 111 (Ag 111)	100
Sodium 24 (Na 24)	10
Strontium 85 (Sr 85)	10
Strontium 89 (Sr 89)	1
Strontium 90 (Sr 90)	0.1
Strontium 91 (Sr 91)	10
Strontium 92 (Sr 92)	10
Sulfur 35 (S 35)	100
Tantalum 182 (Ta 182)	10
Technetium 96 (Tc 96)	10
Technetium 97m (Tc 97m)	100
Technetium 97 (Tc 97)	100
Technetium 99m (Tc 99m)	100
Technetium 99 (Tc 99)	10
Tellurium 125m (Te 125m)	10
Tellurium 127m (Te 127m)	10
Tellurium 127 (Te 127)	100
Tellurium 129m (Te 129m)	10
Tellurium 129 (Te 129)	100
Tellurium 131m (Te 131m)	10
Tellurium 132 (Te 132)	10
Terbium 60 (Tb 160)	10
Thallium 200 (Tl 200)	100
Thallium 201 (Tl 201)	100

Schedule B Exempt Quantities	
Byproduct Material	Microcuries
Thallium 202 (Tl 202)	100
Thallium 204 (Tl 204)	10
Thulium 170 (Tm 170)	10
Thulium 171 (Tm 171)	10
Tin 113 (Sn 113)	10
Tin 125 (Sn 125)	10
Tungsten 181 (W 181)	10
Tungsten 185 (W 185)	10
Tungsten 187 (W 187)	100
Vanadium 48 (V 48)	10
Xenon 131m (Xe 131m)	1,000
Xenon 133 (Xe 133)	100
Xenon 135 (Xe 135)	100
Ytterbium 175 (Yb 175)	100
Yttrium 90 (Y 90)	10
Yttrium 91 (Y 91)	10
Yttrium 92 (Y 92)	100
Yttrium 93 (Y 93)	100
Zinc 65 (Zn 65)	10
Zinc 69m (Zn 69m)	100
Zinc 69 (Zn 69)	1,000
Zirconium 93 (Zr 93)	10
Zirconium 95 (Zr 95)	10
Zirconium 97 (Zr 97)	10
Any byproduct material not listed above other than alpha-emitting byproduct material.	0.1

Appendix A. – Appendix F. ...

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Nuclear Energy Division, LR 13:569 (October 1987), amended by the Office of Air Quality and Radiation Protection, Radiation Protection Division, LR 18:34 (January 1992), LR 20:180 (February 1994), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2574 (November 2000), LR 27:1228 (August 2001), amended by the Office of Environmental Assessment, LR 31:46 (January 2005), LR 31:1580 (July 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2528 (October 2005), LR 32:820 (May 2006), LR 32:***.